Lab.1:

Write a Java Application using concept of JDBC for user login. User will enter username and password.

Application will match for the same in table in database. If match is found the display message "Successful

Login" and if not found display message "Invalid Username and password ".

import java.sql.\*;

import java.util.Scanner;

public class Practical1 {

public static void main(String[] args) {

Scanner scan = new Scanner(System.in);

System.out.println("Enter Username");

String un = scan.next();

System.out.println("Enter Password");

String pw = scan.next();

try {

//DriverManager.registerDriver(new com.mysql.jdbc.Driver()); Class.forName(com.mysql.jdbc.Driver);

Connection con = DriverManager.getConnection("jdbc:mysql://localhost:3306/ajp", "root", "");

Statement stm = con.createStatement();

String Query = "select data from credit where username ='"+un+"' AND password='"+pw+"'";

ResultSet rs = stm.executeQuery(Query);

rs.next();

if (rs.getRow()>0) {

System.out.println("Login Successfull !"+rs.getString("data"));

}

else

{

System.out.println("Login Fail");

}

rs.close();

stm.close();

con.close();

}

catch (SQLException e) {

System.out.println(e);

}

}

}

Lab.2:

Write an Menu driven java application for student information which will create the table with appropriate columns. Menu will contain the options like insert, update and delete. Based on the option, data will be inserted or updated or deleted from table based on student id (student\_id will be primary key). And appropriate message will be displayed for each operation.

Do as discussed and explained during the session.

Lab.3 :

Write an application using GUI for registration. In first form user will enter the data for registration like (Name, Birthdate, Email\_id, Phone\_No). On clicking on submit button data will be inserted into database and user will be redirected to another form. In this form data will be selected from database and displayed in proper format.

Index.html

<!DOCTYPE html>

<html>

<head>

<meta charset="ISO-8859-1">

<title>RegistrationNew</title>

</head>

<body>

<form action="/Practical3/Servlet\_1" method="post">

<input type="text" name="userName" placeholder="Enter Name" maxlength="15"></br>

<input type="text" name="birthDate" placeholder="DOB" maxlength="10"></br>

<input type="text" name="emailId" placeholder="Email Id" maxlength="15"></br>

<input type="text" name="contactNo" placeholder="Contact No." maxlength="10"></br>

<input type="submit" value="Register">

<input type="reset" value="Cancle">

</form>

</body>

</html>

servlet1:

import java.io.IOException;

import java.io.PrintWriter;

import java.sql.Connection;

import java.sql.DriverManager;

import java.sql.SQLException;

import java.sql.Statement;

import javax.servlet.ServletException;

import javax.servlet.annotation.WebServlet;

import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;

/\*\*

* Servlet implementation class Servlet\_1 \*/

@WebServlet("/Servlet\_1")

public class Servlet\_1 extends HttpServlet { private static final long serialVersionUID = 1L;

/\*\*

* @see HttpServlet#HttpServlet() \*/

public Servlet\_1() { super();

* + TODO Auto-generated constructor stub

}

/\*\*

* @see HttpServlet#doGet(HttpServletRequest request, HttpServletResponse response) \*/

protected void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {

// TODO Auto-generated method stub

//response.getWriter().append("Served at: ").append(request.getContextPath()); //process(request, response);

}

/\*\*

* @see HttpServlet#doPost(HttpServletRequest request, HttpServletResponse response) \*/

protected void doPost(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {

* TODO Auto-generated method stub //doGet(request, response); process(request, response);

}

void process(HttpServletRequest request,HttpServletResponse response) throws ServletException,IOException

{

String userName= request.getParameter("userName");

String birthDate= request.getParameter("birthDate");

String emailId= request.getParameter("emailId");

String contactNo = request.getParameter("contactNo");

PrintWriter out = response.getWriter();

try

{

DriverManager.registerDriver(new com.mysql.jdbc.Driver());

Connection con = DriverManager.getConnection("jdbc:mysql://localhost:3306/ajp","ajp","ajp");

Statement stm = con.createStatement();

String query = "insert into user

value('"+userName+"','"+birthDate+"','"+emailId+"','"+contactNo+"')";

if (stm.executeUpdate(query)>0) { response.sendRedirect("/Practical3/Servlet\_2");

}

else {

out.println("<font color='#e00'>Unable to Enter Data</font>");

}

stm.close();

con.close();

}

catch (SQLException e) {

// TODO: handle exception

out.println("<font color='#e00'>Errore:"+e.getMessage()+"</font>");

}

}

}

Servlet2:

import java.io.IOException;

import java.io.PrintWriter;

import java.sql.Connection;

import java.sql.DriverManager;

import java.sql.ResultSet;

import java.sql.ResultSetMetaData;

import java.sql.SQLException;

import java.sql.Statement;

import javax.servlet.ServletException;

import javax.servlet.annotation.WebServlet;

import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;

/\*\*

* Servlet implementation class Servlet\_2 \*/

@WebServlet("/Servlet\_2")

public class Servlet\_2 extends HttpServlet { private static final long serialVersionUID = 1L;

/\*\*

* @see HttpServlet#HttpServlet() \*/

public Servlet\_2() { super();

* + TODO Auto-generated constructor stub

}

/\*\*

* @see HttpServlet#doGet(HttpServletRequest request, HttpServletResponse response) \*/

protected void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {

// TODO Auto-generated method stub

//response.getWriter().append("Served at: ").append(request.getContextPath()); process(request,response);

}

/\*\*

* @see HttpServlet#doPost(HttpServletRequest request, HttpServletResponse response) \*/

protected void doPost(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {

* TODO Auto-generated method stub //doGet(request, response); process(request,response);

}

void process(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException

{

response.setContentType("text/html");

PrintWriter out = response.getWriter();

try

{

DriverManager.registerDriver(new com.mysql.jdbc.Driver());

Connection con = DriverManager.getConnection("jdbc:mysql://localhost:3306/ajp","ajp","ajp"); Statement stm = con.createStatement();

ResultSet rs = stm.executeQuery("Select \* From user"); ResultSetMetaData rsmd = (ResultSetMetaData)rs.getMetaData(); out.println("<a href='/Practical3/'>Add New User !</a>"); out.println("<table align='center' border=2>"); out.println("<tr>");

for(int i=1;i<=rsmd.getColumnCount();i++)

{

out.println("<th>"+rsmd.getColumnName(i).toUpperCase()+"</th>");

}

out.println("</tr>");

while (rs.next()) {

out.println("<tr>");

out.println("<td>"+rs.getString(1)+"</td>");

out.println("<td>"+rs.getString(2)+"</td>");

out.println("<td>"+rs.getString(3)+"</td>");

out.println("<td>"+rs.getString(4)+"</td>");

out.println("</tr>");

}

out.println("</table>");

rs.close();

stm.close();

con.close();

}

catch (SQLException e) {

* TODO: handle exception out.println(e.getMessage());

}

}

}

**Lab 4: Write a servlet application for user authentication (use JDBC). Also display various contents using request object and response object.**

**Index.html**

<!DOCTYPE html>

<html>

<head>

<meta charset="ISO-8859-1">

<title>Login</title>

</head>

<body>

<form action="/Practical4/Servlet\_1" method="post">

<input type="text" placeholder="Enter Username" name="uid"> <input type="text" placeholder="Enter Password" name="pwd"> <input type="submit" value="Login">

</form>

</body>

</html>

**Servlet1**

package edu.keval;

import java.io.IOException;

import java.io.PrintWriter;

import java.sql.Connection;

import java.sql.DriverManager;

import java.sql.ResultSet;

import java.sql.Statement;

import javax.servlet.ServletException;

import javax.servlet.annotation.WebServlet;

import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;

@WebServlet("/Servlet\_1")

public class Servlet\_1 extends HttpServlet {

private static final long serialVersionUID = 1L;

public Servlet\_1() {

super();

}

protected void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {

// TODO Auto-generated method stub

//response.getWriter().append("Served at: ").append(request.getContextPath()); process(request, response);

}

protected void doPost(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {

* TODO Auto-generated method stub process(request, response);

}

void process (HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException

{

response.setContentType("text/html");

String userName = request.getParameter("uid");

String passWord = request.getParameter("pwd");

PrintWriter out = response.getWriter();

try {

DriverManager.registerDriver(new com.mysql.jdbc.Driver());

Connection con = DriverManager.getConnection("jdbc:mysql://localhost:3306/ajp","ajp","ajp");

Statement stm = con.createStatement();

String q = "Select \* from credit";

ResultSet rs = stm.executeQuery(q);

while(rs.next())

{

if (rs.getInt("id")>0) {

if (rs.getString("username").equals(userName) && rs.getString("password").equals(passWord)) {

out.println("Login Successfull!");

}

else

{

out.println("Username or Passwrod is Invalid");

}

}

}

rs.close();

stm.close();

con.close();

} catch (Exception e) { out.println(e.getMessage());

}

}

}



Lab. 5 : Write a servlet application for implementing student grading system. In this system on first page student will enter his data (name, id and department).By clicking on next button he will be redirected to another page. On the second page he will enter marks of all 6 subjects. By clicking on "Generate result" he will be redirected to next page. On this page all information of student will be displayed along with the result pass or fail in appropriate colour. Also display the name of student on each page he visits. (Use session management).

**Index.html**

<!DOCTYPE html>

<!--

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Click nbfs://nbhost/SystemFileSystem/Templates/JSP\_Servlet/Html.html to edit this template

-->

<html>

<head>

<title>Lab-5</title>

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

</head>

<body>

<form action="examInfo">

<div>

<input type="text" name="name" placeholder="Enter Name"><br>

<input type="text" name="id" placeholder="Enter Id"><br>

<input type="text" name="department" placeholder="Enter Department"><br>

<input type="Submit" value="Next" name="btn\_next">

</div>

</form>

</body>

</html>

**examInfo (Servlet)**

/\*

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* Click nbfs://nbhost/SystemFileSystem/Templates/JSP\_Servlet/Servlet.java to edit this template

\*/

import java.io.IOException;

import java.io.PrintWriter;

import javax.servlet.ServletException;

import javax.servlet.annotation.WebServlet;

import javax.servlet.http.Cookie;

import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;

@WebServlet(urlPatterns = {"/examInfo"})

public class examInfo extends HttpServlet {

protected void processRequest(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {

response.setContentType("text/html;charset=UTF-8");

String nm,id,department;

try (PrintWriter out = response.getWriter()) {

nm= request.getParameter("name");

id= request.getParameter("id");

department= request.getParameter("department");

Cookie c1,c2,c3;

c1 = new Cookie("nm",nm);

c2 = new Cookie("id",id);

c3 = new Cookie("dept",department);

response.addCookie(c1);

response.addCookie(c2);

response.addCookie(c3);

out.println("<!DOCTYPE html>");

out.println("<html>");

out.println("<head>");

out.println("<title>ExamInfo</title>");

out.println("</head>");

out.println("<body><form action=\"examResult\">");

out.println("<h1>Student : " + nm + "</h1><br><hr>");

out.println("<center><b>Enter ,marks for six subjects [out of 100]</b></center><br>");

out.println("Enter marks for subject1 <input type=\"text\" name=\"subj1\"><br><br>");

out.println("Enter marks for subject2 <input type=\"text\" name=\"subj2\"><br><br>");

out.println("Enter marks for subject3 <input type=\"text\" name=\"subj3\" ><br><br>");

out.println("Enter marks for subject4 <input type=\"text\" name=\"subj4\" ><br><br>");

out.println("Enter marks for subject5 <input type=\"text\" name=\"subj5\" ><br><br>");

out.println("Enter marks for subject6 <input type=\"text\" name=\"subj6\" ><br><br>");

out.println("<input type=\"Submit\" value=\"Generate Result\">");

out.println("</form></body>");

out.println("</html>");

}

}

@Override

protected void doGet(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

processRequest(request, response);

}

@Override

protected void doPost(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

processRequest(request, response);

}

@Override

public String getServletInfo() {

return "Short description";

}// </editor-fold>

}

**examResult (Servlet)**

import java.io.IOException;

import java.io.PrintWriter;

import javax.servlet.ServletException;

import javax.servlet.annotation.WebServlet;

import javax.servlet.http.Cookie;

import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;

@WebServlet(urlPatterns = {"/examResult"})

public class examResult extends HttpServlet {

protected void processRequest(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {

response.setContentType("text/html;charset=UTF-8"); try (PrintWriter out = response.getWriter()) {

/\* TODO output your page here. You may use following sample code. \*/

int m1,m2,m3,m4,m5,m6;

float avg;

m1 = Integer.parseInt(request.getParameter("subj1"));

m2 = Integer.parseInt(request.getParameter("subj2"));

m3 = Integer.parseInt(request.getParameter("subj3"));

m4 = Integer.parseInt(request.getParameter("subj4"));

m5 = Integer.parseInt(request.getParameter("subj5"));

m6 = Integer.parseInt(request.getParameter("subj6")); avg=(float) (m1+m2+m3+m4+m5+m6)/6;

char grade;

if(avg >= 90)

{

grade = 'A';

}

else if(avg >= 70)

{

grade='B';

}

else if (avg >= 60)

{

grade = 'C';

}

else

{

grade = 'F';

}

Cookie []c= request.getCookies();

out.println("<br>Name :"+c[0].getValue());

out.println("<br>Id :"+c[1].getValue());

out.println("<br>Department :"+c[2].getValue());

out.println("<!DOCTYPE html>");

out.println("<html>");

out.println("<head>");

out.println("<title>ExamResult</title>");

out.println("</head>");

out.println("<body>");

out.println("<h1>Exam Result :"+grade+"</h1>");

out.println("</body>");

out.println("</html>");

}

}

@Override

protected void doGet(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

processRequest(request, response);

}

@Override

protected void doPost(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

processRequest(request, response);

}

@Override

public String getServletInfo() {

return "Short description";

}// </editor-fold>

}



**Lab. 6: Write an application for the following: User should be redirected to the URL entered in location text box.**

Index.html

<!DOCTYPE html>

<!--

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<html>

<head>

<title>TODO supply a title</title>

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

</head>

<body>

<form action="aaa.jsp">

<div>

Enter URL <input type="text" name="uu">

<input type="submit" value="Visit">

</div>

</form>

</body>

</html>

**aaa.jsp**

<%@page contentType="text/html" pageEncoding="UTF-8"%>

<!DOCTYPE html>

<html>

<head>

<meta http-equiv="Content-Type" content="text/html; charset=UTF-8"> <title>JSP Page</title>

</head>

<body>

<%

String u=request.getParameter("uu");

if(u.startsWith("http://")||u.startsWith("htttps://")){

response.sendRedirect(u);

}

else

{

* session.setAttribute("error","Not a alid URL");

}

%>

</body>

</html>



**Lab. 7 : Develop a JSP application for user authentication (use JDBC).**

Index.html

<!DOCTYPE html>

<!--

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-->

<html>

<head>

<title>TODO supply a title</title>

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

</head>

<body>

<form action="Servlet1">

Username<input type="text" name="uname">

Password<input type="password" name="pwd">

<input type="submit" value="login">

</form>

</body>

</html>

**Servlet1**

import java.io.IOException;

import java.io.PrintWriter;

import javax.servlet.ServletException;

import javax.servlet.annotation.WebServlet;

import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;

import java.sql.\*;

import javax.servlet.http.HttpSession;

@WebServlet(urlPatterns = {"/Servlet1"})

public class Servlet1 extends HttpServlet {

protected void processRequest(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {

response.setContentType("text/html;charset=UTF-8");

String u,p;

u=request.getParameter("uname").trim();

p=request.getParameter("pwd").trim();

Connection c;

try {

// PrintWriter out = response.getWriter();

/\* TODO output your page here. You may use following sample code. \*/ Class.forName("com.mysql.cj.jdbc.Driver"); c = DriverManager.getConnection(

"jdbc:mysql://localhost:3306/mcadb",

"root", "bhawsar");

Statement s=c.createStatement();

ResultSet rs=s.executeQuery(

"select \* from registration where name='"+u+"' AND pwd='"+p+"'"); HttpSession session = request.getSession();

System.out.println("Record fetched");

if (rs.next()) {

session.setAttribute("un", u);

response.sendRedirect("/Lab7/home.jsp");

}

else{

//session.setAttribute("flag", "Wrong Credentials");

response.sendRedirect("/Lab7/index.html");

}

}

catch(Exception e)

{

System.out.println(e);

}

}

@Override

protected void doGet(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

processRequest(request, response);

}

@Override

protected void doPost(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

processRequest(request, response);

}

@Override

public String getServletInfo() {

return "Short description";

}// </editor-fold>

}

**home.jsp**

<%--

Document : home

Created on : Mar 10, 2024, 8:59:57 AM

Author : JIGAR

--%>

<%@page contentType="text/html" pageEncoding="UTF-8"%>

<!DOCTYPE html>

<html>

<head>

<meta http-equiv="Content-Type" content="text/html; charset=UTF-8"> <title>JSP Page</title>

</head>

<body>

<%

String un = (String)session.getAttribute("un");

%>

<h2>Welcome <%= un %></h2>

</body>

</html>

